NNA16568621Q-AKK_Amendment 1_Specifications

The following specifications are required:

- Temperature range (4C to 44C with light on and 2C to 44C with light off) and humidity range [humidity control of higher than ambient to 85% (light on or off) for temperatures between 15C to 30C] the capability to simulate the optimum rearing environmental conditions of drosophila, and the flexibility to change the environmental conditions to study the effects on the drosophila development.
- Phenolic-coated refrigeration coils shall resist the corrosive effects of acids inherent in the rearing of drosophila.
- The incubator shall be able to connect to and independently control sources of CO_2 and O_2 in order to maintain a suitable and accurate CO_2 and O_2 concentration inside the chamber over extended periods.
- All programmable parameter settings shall be of sufficient quality to be able to reliably maintain calibration between yearly service intervals.
- Lighting system shall include a programmable cycle timer to simulate day/night conditions. The light banks shall be independently controlled to enable flexible interior layout configurations. Lights shall illuminate the shelf from above and be modular, expandable, and waterproof.
- Environmental control system shall control temperature, humidity, CO_2, O_2 and lighting from the outside of the any chamber with multiple programmable steps. Remote control and monitoring of the chamber is required both on the front panel and via a network interface and the associated software.
- Display of controlled parameters, such as temperature and humidity, shall allow visualization of instantaneous setpoints and operating conditions. Setpoints shall be easily adjusted from either the front panel or via a network connection. Control software shall be included.
- CO2 system shall be include a 10,000 ppm or better sensor.
- Programmable ultrasonic humidifier-dehumidifier with RH sensor required.
- The incubator shall be capable of being connected to a standard lab central alarm system. Wired temperature alarm connectivity is required.
- Programmable setpoints for all parameters. Computer interface shall be network accessible.
- Installation in lab and initial calibration required.

The units shall be delivered FOB Destination and installed at NASA Ames Research Center, Moffett Field, CA within three months of date of award.